

APPLICANT(S): KOROL, Victor  
SERIAL NO.: 10/674,385  
FILED: October 1, 2003



### AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Currently Amended) An apparatus comprising:  
a first active component coupled to a first capacitor of a first capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of a first signal; and  
a second active component coupled to a first capacitor of a second capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of a second signal,  
wherein the first and second capacitor-inductor-capacitor impedance converters are coupled by a shared capacitor to combine said first and second signals inputted to the first and second active components, respectively.
2. (CANCELED).
3. (CANCELED).
4. (Previously Presented) The apparatus of claim 1, wherein a capacitance of the first capacitor of the first capacitor-inductor-capacitor impedance converter is different from the capacitance of the first capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the first-capacitors of the first and second capacitor-inductor-capacitor impedance converters are both different from the capacitance of the shared capacitor.
5. (Previously Presented) The apparatus of claim 1, wherein the first and second active components comprise transistors.
6. (Original) The apparatus of claim 5, wherein the transistors are bipolar transistors.
7. (CANCELED)
8. (Currently Amended) A communication device comprising:

APPLICANT(S): KOROL, Victor  
SERIAL NO.: 10/674,385  
FILED: October 1, 2003  
Page 3

a dipole antenna operably coupled to an outphasing transmitter ~~the outphasing transmitter comprising, which comprises~~ first and second non linear power amplifiers; and

~~coupled to a combiner to combine first and second signals provided by the first and second non linear power amplifiers of the outphasing transmitter, wherein the combiner that includes a first active component coupled to a first capacitor of a first capacitor-indicator-capacitor impedance converter, to filter out a second harmonic of a first signal of the first non linear power amplifier, and a second active component coupled to a first capacitor of a second capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of the second signal of the second non linear power amplifier, wherein the first and second capacitor-indicator-capacitor impedance converters are able to combine first and second signals of the first and second non linear power amplifiers, respectively.~~

9. (Previously Presented) The communication device of claim 8, wherein the first capacitor-inductor-capacitor impedance converter and the second capacitor-inductor-capacitor impedance converter are coupled by a shared capacitor.
10. (CANCELED).
11. (Previously Presented) The communication device of claim 9, wherein the capacitance of the first capacitor of the first capacitor-inductor-capacitor impedance converter is different than the capacitance of the first capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of input capacitors of the first and second capacitor-inductor-capacitor impedance converters are both different from the capacitance of the shared capacitor.
12. (Previously Presented) The communication device of claim 8, wherein the first and second active components comprise transistors.
13. (Previously Presented) The communication device of claim 12, wherein the transistors are bipolar transistors.

14. (CANCELED).

15. (Previously Presented) A method comprising:

providing impedance matching between a combination of first and second power amplifiers and a desired load by assigning first and second capacitance values to first and second capacitors, respectively, associated with said combination; and

filtering out a second harmonic of first and second signals provided by the first and second power amplifiers, respectively.

16. (Original) The method of claim 15, comprising assigning different capacitance values to the first and second capacitors.

17. (CANCELED).

18. (Currently Amended) A wireless communication device comprising:

an outphasing transmitter, which comprises first and second non linear power amplifiers to output first and second signals, respectively; and

~~coupled to a combiner able to combine said first and second signals of first and second non linear power amplifiers, respectively, wherein the combiner includes having a first active component coupled to a first capacitor of a first capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of the first signal of the first non linear power amplifier, and a second active component coupled to a first capacitor of a second capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of a second signal of the second non linear power amplifier, wherein the first and second capacitor-inductor-capacitor impedance converters are able to combine first and second signals of first and second non linear power amplifiers, respectively.~~

APPLICANT(S): KOROL, Victor  
SERIAL NO.: 10/674,385  
FILED: October 1, 2003  
Page 5

19. (Previously Presented) The wireless communication device of claim 18, wherein the first capacitor-inductor-capacitor impedance converter and the second capacitor-inductor-capacitor impedance converter are coupled by a shared capacitor.

20. (CANCELED).

21. (Previously Presented) The wireless communication device of claim 19, wherein the capacitance of the first capacitor of the first capacitor-inductor-capacitor impedance converter is different than the capacitance of the first capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the first capacitors of the first and second capacitor-inductor-capacitor impedance converters are both different from the capacitance of the shared capacitor.

22. (Previously Presented) The wireless communication device of claim 21, wherein the first and second active components comprise transistors.

23. (Currently Amended) A wireless communication system comprising:

a station having an outphasing transmitter comprises first and second non linear power amplifiers coupled to a combiner having a first active component coupled to a first capacitor of a first capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of a first signal of the first non linear power amplifier, and a second active component coupled to a first capacitor of a second capacitor-inductor-capacitor impedance converter, to filter out a second harmonic of a second signal of the second non linear power amplifier, wherein the first and second capacitor-indicator-capacitor impedance converters are able to combine said first and second signals of first and second non linear power amplifiers, respectively.

24. (Previously Presented) The wireless communication system of claim 23, wherein the first capacitor-inductor-capacitor impedance converter and the second capacitor-inductor-capacitor impedance converter are coupled by a shared capacitor.

25. (CANCELED).

26. (Previously Presented) The wireless communication system of claim 24, wherein the capacitance of the input capacitor of the first capacitor-inductor-capacitor impedance

APPLICANT(S): KOROL, Victor  
SERIAL NO.: 10/674,385  
FILED: October 1, 2003  
Page 6

converter is different than the capacitance of the input capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the input capacitors of the first and second capacitor-inductor-capacitor impedance converters are both different from the capacitance of the shared capacitor.

27. (Previously Presented) The wireless communication system of claim 23, wherein the first and second active components comprise transistors.

28. (CANCELED).

29. (Previously Presented) The wireless communication system of claim 23, wherein the outphasing transmitter comprises:

an impedance transformer to provide a direct current (DC) voltage to the first and second active components.

30. (Previously Presented) The wireless communication system of claim 23, wherein the first active component is able to set a positive capacitance to the first capacitor of the first capacitor-inductor-capacitor impedance converter and the second active component is able to set a negative capacitance to the first capacitor of the second capacitor-inductor-capacitor impedance converter.

31. (Previously Presented) The communication device of claim 8, wherein the outphasing transmitter comprises:

an impedance transformer to provide a direct current (DC) voltage to the first and second active components.

32. (Previously Presented) The communication device of claim 8, wherein the first active component is able to set a positive capacitance to the first capacitor of the first capacitor-inductor-capacitor impedance converter, and wherein the second active component is able to set a negative capacitance to the first capacitor of the second capacitor-inductor-capacitor impedance converter.

33. (Previously Presented) The method of claim 15, comprising:

setting a positive capacitance to the first capacitor; and  
setting a negative capacitance to the second capacitor.

APPLICANT(S): KOROL, Victor  
SERIAL NO.: 10/674,385  
FILED: October 1, 2003  
Page 7

34. (Previously Presented) The wireless communication system of claim 18, wherein the outphasing transmitter comprises:

an impedance transformer to provide a direct current (DC) voltage to the first and second active components.

35. (Previously Presented) The wireless communication system of claim 18, wherein the first active component is able to set a positive capacitance to the first capacitor of the first capacitor-inductor-capacitor impedance converter, and wherein the second active component is able to set a negative capacitance to the first capacitor of the second capacitor-inductor-capacitor impedance converter.